

### **Remarks**

Applicants thank the examiner for the withdrawal of the objection to the Arrangement of the Specification and the withdrawal of the § 112, first and second paragraph, rejections, the § 101 rejection and the § 102 rejection. Claims 21, 25, 26, 27, 34, 38, 50, 56, 60, 62, 63 and 64 have been amended in this response and claims 28, 31, 43, 44 and 61 have been canceled. Claim 65 has been added. Therefore, claims 1, 3-10, 12, 13, 15-21, 25-27, 29, 32-38, 40, 42, 46-60 and 62-65 are currently pending.

Support for the amendment to claims 25 and 50 may be found at page 10, lines 21-22 and page 6, lines 3-5, respectively. Support for the amendment to claims 42 and 56 may be found at page 2, line 16 to page 3, line 16. Support for the amendments to claim 60 may be found in previously presented claim 38. Claims 62 and 64 have been amended to correct clerical errors. Support for new claim 65 may be found in Example 7 on pages 206-207 where the compounds of claim 20 are tested against lung cancer, colon cancer, CNS cancer, melanoma, renal cancer and breast cell. Applicants respectfully submit that no new matter has been added by these amendments.

#### ***Section 112, First Paragraph, Rejections***

Claims 43 and 44 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicants respectfully submit that the cancellation of claims 43 and 44 obviate this objection and request that it be withdrawn.

Claims 1, 6-10, 12, 38, 42, 46 and 60 stand rejected under § 112, first paragraph, as lacking written description for the definition of R<sub>2</sub> as CH<sub>2</sub>OR. Applicants respectfully submit that support for R<sub>2</sub> as CH<sub>2</sub>OR may be found on page 4, line 16. Therefore, applicants request that this rejection be withdrawn.

Claims 1, 3-5, 7-10, 38, 42 and 46 stand rejected under § 112, first paragraph, as lacking written description for the definition of  $R_2$  as  $CH=CR^A R^B$ . Applicants respectfully submit that there is support in the specification for this definition. At page 3, lines 24-28, applicants indicate that a preferred compound is that where A is a single bond and  $R_2$  is not  $CH=CR^A R^B$ . By implication,  $R_2$  can be  $CH=CR^A R^B$  in other compounds of the invention. Applicants respectfully request that this rejection be withdrawn.

Claims 1, 3, 4, 7-10, 12, 15-21, 25-29, 31-33, 38, 40, 42, 46-49 and 57-60 stand rejected under § 112, first paragraph, as lacking written description for the phrase "one or more carbonyl groups or one or more ether or thioether groups" in the definition of R. Applicants respectfully submit that this phrase is supported in the specification at page 10, lines 21-22 wherein applicants mention an ether group ( $OC_2H_5$ ), a thioether ( $-CH_2S-CH_3$ ), and a carbonyl group. Applicants therefore request that this rejection be withdrawn.

Claims 38, 40 and 60-64 stand rejected under § 112, first paragraph, as lacking written description for the claimed cancers. Claim 38 has been amended to remove the compounds of claim 13 and claim 20. Applicants respectfully submit that there is support in the specification for the listed forms of cancer. The compounds of claim 1 were tested in example 5 against lung cancer, colon cancer, CNS cancer, melanoma, renal cancer and breast cell lines (see, e.g., p. 201) and in example 10 against ovarian cell lines (see, e.g., p. 211). Compounds of claim 50 were tested in example 6 against lung cancer, colon cancer, CNS cancer, melanoma, renal cancer and breast cell lines (see, e.g., p. 202) and in example 10 against ovarian cell lines (see, e.g., p. 212). Applicants, therefore, request that this rejection be withdrawn. New claim 65 has been added to cover a method of treating cancer using the compounds of claim 20. Compounds of claim 20 were tested in example 7 against lung cancer, colon cancer, CNS cancer, melanoma, renal cancer and breast cell lines (see, e.g., p. 206).

Claim 42 stands rejected under § 112, first paragraph, as lacking written description for the amendment of the formula such that the five-membered ring is optionally fully saturated. Applicants have amended claim 42 to indicate that the five-membered ring cannot be fully saturated and respectfully submit that the rejection is therefore obviated. Applicants request that the rejection be withdrawn.

***Section 112, Second Paragraph, Rejections***

Claims 43 and 44 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants respectfully submit that the cancellation of claims 43 and 44 obviate this objection and request that it be withdrawn.

Claim 21 stands rejected under § 112, second paragraph, as having insufficient antecedent basis for the limitation "H" in the definition of R<sub>8</sub>. Applicants respectfully submit that the amendment to claim 21 obviates the rejection and request that it be withdrawn.

Claim 25 stands rejected under § 112, second paragraph, as having insufficient antecedent basis for the limitation "aryl" in the definition of R<sub>8</sub> and for the limitation "optionally contains one or more hetero atoms which may form part or, or be, a functional group" in the definition of R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub> and R<sub>9</sub>. Applicants respectfully submit that the amendments to claim 25 obviate the rejections and request that they be withdrawn.

Claim 26 stands rejected under § 112, second paragraph, as having insufficient antecedent basis for the limitation "phenyl" in the definition of R<sub>8</sub> and for the limitation "methoxy and ethoxy" in the definition of the substituents on the phenyl of R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub> and R<sub>9</sub>. Applicants respectfully submit that the amendments to claims 25 and 26 obviate the rejections and request that they be withdrawn.

Claim 27 stands rejected under § 112, second paragraph, as having insufficient antecedent basis for the limitation "Ph" in the definition of R<sub>8</sub> and for the limitation "p-MeO"

in the definition of the substituents on the phenyl of R<sub>6</sub>, R<sub>7</sub>, R<sub>8</sub> and R<sub>9</sub>. Applicants respectfully submit that the amendments to claims 26 and 27 obviate the rejections and request that they be withdrawn.

Claim 28 stands rejected under § 112, second paragraph, as lacking antecedent basis for the limitation "the compound is a dimer, wherein the dimer bridge is of the formula –O–(CH<sub>2</sub>)<sub>q</sub>–O–, where q is from 3 to 12" in the definition of the compound. Applicants respectfully submit that the cancellation of claim 28 obviates this rejection and request that it be withdrawn.

Claim 31 stands rejected under § 112, second paragraph, as lacking antecedent basis for the limitation "electron donating group" in the definition of R<sub>7</sub>. Applicants respectfully submit that the cancellation of claim 31 obviates this rejection and request that it be withdrawn.

Claim 34 stands rejected under § 112, second paragraph, as vague and indefinite because it is dependent on a canceled claim. Applicants respectfully submit that the amendment to claim 34 obviates this rejection and request that it be withdrawn.

Claims 43, 44 and 63 stand rejected under § 112, second paragraph, because they do not end with a period. Applicants respectfully submit that the amendment to claim 63 and the cancellation of claims 43 and 44 obviate this rejection and request that it be withdrawn.

Claims 50 to 55 stand rejected under § 112, second paragraph, as vague and indefinite because it is not known what is meant by "optionally contains one or more hetero atoms which may form part or, or be, a functional group" in the definition of R. Applicants respectfully submit that the amendment to claim 50 obviates this rejection and request that it be withdrawn.

Claim 56 stands rejected under § 112, second paragraph, as lacking antecedent basis for the limitation "4-methoxyphenyl" in the definition of R<sub>2</sub>. Applicants respectfully submit

that the amendment to claim 56 to make it independent obviates this rejection and request that it be withdrawn.

Claim 60 stands rejected under § 112, second paragraph, as lacking antecedent basis for the limitation "4-methoxyphenyl" in the definition of R<sub>2</sub> in the last species. Applicants respectfully submit that the amendments to make claim 60 independent obviate this rejection and request that it be withdrawn.

Claim 61 stands rejected under § 112, second paragraph, as lacking antecedent basis for the limitation "BnO" in the species with respect to the definition of R<sub>8</sub>. Applicants respectfully submit that the cancellation of claim 61 obviates this rejection and request that it be withdrawn.

Claim 62 stands rejected under § 112, second paragraph, as lacking antecedent basis for the limitation "cyclopentyl" with respect to the five-membered ring. Applicants respectfully submit that the amendment of claim 62 to correct a clerical error in the structure obviates this rejection and request that it be withdrawn.

Claim 63 stands rejected under § 112, second paragraph, as lacking antecedent basis for the limitation "FmocHN-CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>-O-" in the third species with respect to the definition of R<sub>8</sub>. Applicants respectfully submit that the amendment of claim 63 to delete the third species obviates this rejection and request that it be withdrawn.

Claim 64 stands rejected under § 112, second paragraph, as lacking antecedent basis for the limitation "CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>" in the second species with respect to the definition of R<sub>8</sub>. Applicants respectfully submit that the amendment of claim 64 to correct a clerical error in the second species obviates this rejection and request that it be withdrawn.

### ***Section 102 Rejection***

Claims 50-55 stand rejected under 35 U.S.C. § 102(a) as anticipated by Gregson et al. Chem. Commun. The Official Action asserts that the instant claims are not described in the priority document and thus are only entitled to the benefit of PCT/GB99/02838, filed August 27, 1999. Applicants respectfully submit that claims 50-55 are entitled to claim priority to the August 27, 1998 Great Britain application. Claims 50-55 are based on claims 12-18 of the first priority document (the August 27, 1998 Great Britain application). Claim 50 can be obtained from claim 12 of the priority document by setting  $R'_2$  to be  $CHR''_2$  and setting  $R''_2$  to be H. Applicants therefore submit that Gregson et al. is not available as prior art and request that this rejection be withdrawn.

### ***Provisional Obviousness-Type Double Patenting Rejection***

Applicants maintain their previous arguments with respect to the provisional obviousness-type double patenting rejection.

### **Conclusion**

Applicants respectfully submit that the claims, as amended, are in condition for allowance and earnestly solicit a Notice of Allowance.

Respectfully submitted,



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